**Agenda item:** 3.4

**Source:** **vivo**

**Title: [FS\_XRTraffic] Update Jitter Range Analysis**

**Document for:** Discussion andAgreement

# Introduction

In this contribution, we propose to add the analytical results of jitter range in clause 6.5.3.2 of TR 26.926.

# Proposal

We propose to agree the jitter analysis results and update it in the latest TR 26.926.

# Changes

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Start of Change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.5.3.2 Jitter

Jitter statistical models are in Table 5.1.1.2-1 in TR 38.838 [4], repeated below in Table 6.5.3.2-1. The jitter is modelled as a random variable added on top of periodic arrivals, which follows truncated Gaussian distribution, as shown in Table 5.1.1.2-1 in TR 38.838[4].

Table 6.5.3.2-1: Statistical parameters for jitter (TR 38.838)

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | unit | Baseline value for evaluation | Optional value for evaluation |
| Mean | ms | 0 |  |
| STD | ms | 2 |  |
| Truncation range | ms | [-4, 4] | [-5, 5] |

An analysis was done using the traces defined in clause 6.5.1 for jitter statistical modelling. Table 6.5.3.2-2 shows the jitter distribution for the P-trace according to the traces.

**Table 6.5.3.2-24: Jitter distribution deriving from the P-trace files**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | VR 2-1 | VR 2-2 | VR 2-3 | VR 2-4 | VR 2-5 | VR 2-6 | VR 2-7 | VR 2-8 |
| Mean (ms) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| STD (ms) | 4.96 | 5.00 | 4.85 | 4.89 | 5.31 | 4.02 | 5.19 | 5.18 |
| Min (ms) | -15.89 | -16.00 | -11.87 | -11.96 | -18.95 | -14.40 | -16.48 | -16.18 |
| Max (ms) | +11.27 | +10.30 | +10.10 | +10.51 | +18.69 | +8.08 | +11.59 | +11.13 |
| Jitter range (ms) | [-8.39, +7.89] | [-8.42, +7.91] | [-8.26, +7.69] | [-8.30, +7.77] | [-8.74, +8.42] | [-7.05, +6.24] | [-8.82, +8.19] | [-8.79, +8.20] |
| jitter range = [5%-tile in CDF, 95%-tile in CDF] ms | | | | | | | | |

Figure 6.5.3.2-1 shows the distribution of the jitter value for different P-traces.

Figure 6.5.3.1-1 The statistic of jitter from the P-trace files

From the table and figure the following is observed:

* VR2-1, VR2-2, VR2-3, VR2-4, VR2-5, VR2-6, VR2-7 and VR2-8 share similar jitter distribution with Mean 0ms and STD 5ms in rang [-8, 8]ms, since they all experience the same encoder and transport network.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of Change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*